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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HICKMAN PALERMO TRUONG & BECKER, LLP
1600 WILLOW STREET
SAN JOSE, CA 95125

EXAMINER	
TODD, GREGORY G	

ART UNIT	PAPER NUMBER
2157	10

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

P126

Office Action Summary	Application No.	Applicant(s)	
	09/648,420	DAY ET AL.	
	Examiner	Art Unit	
	Gregory G Todd	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This is a second office action in response to applicant's amendment filed, 02 February 2004, of application filed, with the above serial number, on 28 August 2000 in which claims 1, 8, 12, 13, 15, and 17 have been amended. Claims 1-20 are therefore pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chauhan (hereinafter "Chauhan", 6,115,752) in view of Scharber (hereinafter "Scharber", 6,542,964).

4. As per Claim 1, Chauhan discloses a method for operating a network of point of presence servers sharing a hostname, wherein Chauhan discloses:

receiving a request from a user for a web page at a first web address, the first web address including the hostname (request for address) (at least col. 6, lines 45-53);

determining traffic loads of a plurality of customer web servers, each of the customer web servers storing the web page (mirrored server round trip times) (at least col. 7, lines 24-42);

determining a customer web server from the plurality of customer web servers that is appropriate for the request, the customer web server having a traffic load lower than traffic loads of remaining customer web servers from the plurality of customer web servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-63);

directing the request from the user to the customer web server (ONS routing request) (at least Fig. 4); thereafter

receiving a request from the user for content on the web page at a second web address, the second web address including a hostname (request for an address) (at least col. 6, lines 45-53);

determining service metrics of servers in the network of servers (mirrored server round trip times) (at least col. 7, lines 24-42);

determining the server from the network of servers that is appropriate for the request for content, the server having service metrics better than service metrics of remaining servers from the network of servers (mirrored server with best route) (at least col. 7, lines 24-42).

Chauhan does not explicitly disclose point-of-presence servers as having cached static content thereon to further mirror data of a customer webpage. However, the use and advantages for using such a cache server is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses many types of cache servers including POP cache servers for redirecting

requests for a most economical delivery of content to a end user (at least col. 4, lines 13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Scharber's POP cache serving into Chauhan's system as this would further enhance Chauhan's system to lessen load and traffic on mirror sites and use Chauhan's optimizing address name translating with Scharber's POP cache servers so as to geographically optimize latency between a client and static content from a server thereon.

5. As per Claim 2.

determining load of servers in the network of servers (at least col. 2, lines 14-33; col. 3, lines 39-53);

wherein determining the server from the network of servers that is appropriate for the request, the server having a latency and a load lower than latency or load of the remaining servers from the network of servers (at least col. 2, lines 14-33; col. 3, lines 39-53).

6. As per Claim 3.

Chauhan does not disclose caching static content. However, the use and advantages for using such caching is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses:

determining whether the point of presence server includes the static content; determining a web server that includes the static content when the point of presence server does not include the static content (at least Scharber col. 4, lines 13-26, 46-56);

retrieving the static content from the web server that includes the static content (at least Scharber col. 4, lines 13-26, 46-56); and

storing the static content from the web server in the point of presence server (caching static content) (at least Scharber col. 4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Scharber's static page caching into Chauhan's system as this is very well known in the art as to how server caching is performed for client requested static content.

7. As per Claim 4

wherein determining the web server comprises:

determining traffic loads of the plurality of customer web servers, each of the customer web servers storing the static content (mirror servers) (at least col. 3, lines 39-53); and

determining another customer web server from the plurality of customer web servers that is appropriate for the request, the another customer web server having a traffic load lower than traffic loads of remaining customer web servers from the plurality of customer web servers (best route to mirror server) (at least col. 3, lines 39-53).

8. As per Claim 5.

Chauhan does not disclose caching from another server. However, the use and advantages for using such a caching protocol is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses wherein retrieving the static content from the web server comprises:

determining another IP address of the another customer web server (peer cache or origin) (at least Scharber col. 4, lines 46-56); and

requesting the static content from the another customer web server at the another IP address (retrieving content from origin server) (at least Scharber col. 4, lines 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Scharber's static page caching into Chauhan's system as this is very well known in the art as to how server caching is performed for client requested static content.

9. As per Claim 6.

wherein the network of point of presence servers comprises a domain name server (at least col. 1, lines 41-67).

10. As per Claim 7.

wherein the request from the user for the web page is transferred from a first domain name server (local name server) (at least Fig. 4);

wherein the network of servers comprises a second domain name server (ONS) (at least Fig. 4; col. 3, lines 23-38); and

wherein the second domain name server determines the customer web server from the plurality of customer web servers (ONS determines mirror server) (at least col. 3, lines 39-53).

11. As per Claim 8, Chauhan discloses a method for operating a network of point of presence servers, wherein Chauhan discloses:

receiving a first request from a client DNS server to resolve a first domain name, the client DNS server receiving a request from a user of a web page address that includes the first domain name (request for address) (at least col. 6, lines 45-53);

determining load measurements of a plurality of customer web servers, each of the customer web servers addressable by the first domain name, and each of the customer web servers configured to service the request from the user (mirrored server round trip times) (at least col. 7, lines 24-42);

determining a customer web server from the plurality of customer web servers, the customer web server having a traffic load lower than traffic loads of other customer web servers from the plurality of customer web servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-63);

providing the IP address of the customer web server to the client DNS server (LNS) (at least Fig. 4; col. 3, lines 39-53); thereafter

receiving a second request from the client DNS server to resolve a second domain name, the client DNS server receiving a request from the user of a uniform resource locator that includes the second domain name (request for an address) (at least col. 6, lines 45-53);

determining performance metric measurement of servers in the network of servers, each of the servers addressable by the second domain name (mirrored server round trip times) (at least col. 7, lines 24-42);

determining a server from the network of servers, the server having performance metrics lower than performance metrics of other servers from the network of servers (mirrored server with best route) (at least col. 7, lines 24-42);

providing the IP address of the server to the client DNS server (LNS) (at least Fig. 4; col. 3, lines 39-53).

Chauhan does not explicitly disclose point-of-presence servers as having cached content thereon to further mirror data of a customer webpage. However, the use and advantages for using such a cache server is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses many types of cache servers including POP cache servers for redirecting requests for a most economical delivery of content to a end user (at least col. 4, lines 13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Scharber's POP cache serving into Chauhan's system as this would further enhance Chauhan's system to lessen load and traffic on mirror sites and use Chauhan's optimizing address name translating with Scharber's POP cache servers so as to geographically optimize latency between a client and content from a server thereon.

12. As per Claim 9 and 16.

wherein the load measurements comprise latency measurements (at least col. 2, lines 1-9, 42-57).

13. As per Claim 10 and 17.

wherein the performance metric measurements comprise any of: load CPU and memory measurements, HTTP response measurements, and FTP response measurements (load, ping) (at least col. 2, lines 14-33; col. 3, lines 54-66).

14. As per Claim 11 and 18.

Chauhan does not disclose caching static content. However, the use and advantages for using such caching is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses wherein retrieving data from the point of presence server comprises:

determining whether the point of presence server includes the data (at least Scharber col. 4, lines 13-26, 46-56);

retrieving data from another customer web server from the plurality of customer web servers when the server does not include the data (at least Scharber col. 4, lines 13-26, 46-56); and

storing the data within the server (caching static content) (at least Scharber col. 4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Scharber's static page caching into Chauhan's system as this is very well known in the art as to how server caching is performed for client requested static content.

15. As per Claim 12 and 19.

wherein retrieving data from the other customer web server comprises:

determining the other customer web server from the plurality of customer web servers, the other customer web server having a traffic load lower than traffic loads of remaining customer web servers from the plurality of customer web servers (at least col. 2, lines 14-33; col. 3, lines 39-53); and

retrieving the data from the other customer web server (download content) (at least col. 2, lines 1-9).

16. As per Claim 13.

receiving a first request from a second client DNS server to resolve a third domain name, the second client DNS server receiving a request from a second user of a second web page address that includes the third domain name (at least Fig. 4);

determining load measurements of a plurality of second customer web servers, each of the second customer web servers addressable by the third domain name, and each of the second customer web servers storing data configured to service the request from the second user (mirrored servers) (at least Fig. 4);

determining a second customer web server from the plurality of second customer web servers, the second customer web server having a traffic load lower than traffic loads of other second customer web servers from the plurality of second customer web servers; determining an IP address of the second customer web server (at least col. 2, lines 14-33; col. 3, lines 39-53); and

providing the IP address of the second customer web server to the second client DNS server (IP2) (at least Fig. 4).

17. As per Claim 14.

Chauhan inherently discloses more than one user using the system, and that with any user, the mirror site with the best performance characteristics will be chosen as the server to retrieve content from thereon:

receiving a second request from the second client DNS server to resolve the second domain name, the second client DNS server receiving a request from the second user of a second uniform resource locator that includes the second domain name (at least Fig. 4; col. 2, lines 10-33);

retrieving a second set of data from the point of presence server in response to the second uniform resource locator (at least Fig. 4; col. 2, lines 10-33); and

providing the second set of data to the user (at least Fig. 4; col. 2, lines 1-33).

18. As per Claim 15, Chauhan discloses a method for a network of point of presence servers, wherein Chauhan discloses:

receiving at a first point of presence server a first request from a first client DNS server to resolve a first domain name, the first request from the first client DNS server determined in response to a first uniform resource locator entered by a first user, the first uniform resource locator comprising the first domain name (request for address) (at least col. 6, lines 45-53);

receiving at a second point of presence server a first request from a second client DNS server to resolve the first domain name, the first request from the second client DNS server determined in response to the first uniform resource locator entered by a second user, the first uniform resource locator comprising the first domain name (another request for address) (at least col. 6, lines 45-53);

determining at the first point of presence server traffic measurements of a plurality of customer web servers, each of the customer web servers addressable by the first domain name, and each of the customer web servers storing data associated with the first uniform resource locator (mirrored server round trip times) (at least col. 7, lines 24-42);

determining at the first point of presence server a first customer web server from the plurality of customer web servers, the first customer web server having traffic loads lower than traffic loads of other customer web servers from the plurality of customer web servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining at the second point of presence server the first customer web server from the plurality of customer web servers, the first customer web server having traffic loads lower than traffic loads of other customer web servers from the plurality of customer web servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining at the first point of presence server an IP address of the first customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-63);

determining at the second point of presence server an IP address of the first customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-63);

providing from the first point of presence server the IP address of the first customer web server to the first client DNS server and to the second client DNS server (LNS) (at least Fig. 4; col. 3, lines 39-53);

providing from the second point of presence server the IP address of the first customer web server to the first client DNS server and to the second client DNS server (LNS) (at least Fig. 4; col. 3, lines 39-53); thereafter

receiving at the first point of presence server a second request from the first client DNS server to resolve a second domain name, the second request from the first client DNS server determined in response to a second uniform resource locator comprising the second domain name, the second uniform resource locator from the first customer web server (request for an address) (at least col. 6, lines 45-53);

receiving at the second point of presence server a second request from the second client DNS server to resolve the second domain name, the second request from the second client DNS server determined in response to the second uniform resource locator comprising the second domain name, the second uniform resource locator from the first customer web server (request for an address) (at least col. 6, lines 45-53);

determining at the first point of presence server performance metric measurement between the first point of presence server and other point of presence servers in the network of point of presence servers, each of the point of presence servers addressable by the second domain name (mirrored server round trip times) (at least col. 7, lines 24-42);

determining at the second point of presence server performance metric measurement between the second point of presence server and other point of presence servers in the network of point of presence servers (mirrored server round trip times) (at least col. 7, lines 24-42);

determining at the first point of presence server performance metric measurement between the second point of presence server and other point of presence servers in the network of point of presence servers (mirrored server round trip times) (at least col. 7, lines 24-42);

determining at the first point of presence server a third point of presence server from the network of point of presence servers, the third point of presence server having performance metrics lower than performance metrics with regards to the first point of presence server (mirrored server with best route) (at least col. 7, lines 24-42);

determining at the second point of presence server a fourth point of presence server from the network of point of presence servers, the fourth point of presence server having performance metrics lower than performance metrics with regards to the second point of presence server (mirrored server with best route) (at least col. 7, lines 24-42).

Chauhan discloses multiple users (inherently) requesting a URL for name translation and a local name server routing requests to an optimizer name server to route the request to the mirror site with the best performance for that user. Chauhan does not explicitly disclose multiple point-of-presence servers as having cached content thereon to further mirror data of a customer webpage. However, the use and advantages for using such a cache server is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses many types of cache servers including POP cache servers for redirecting requests for a most economical delivery of content to a end user (at least col. 4, lines 13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Scharber's POP cache serving into Chauhan's system as this would further enhance Chauhan's system to lessen load and traffic on mirror sites and use Chauhan's optimizing address name translating with Scharber's POP cache servers so as to geographically optimize latency between a client and static or dynamic content from a server thereon.

19. As per Claim 20.

wherein the first domain name and the second domain name are the same (mirrored sites) (at least col. 1, lines 41-67).

Response to Arguments

20. Applicant's arguments filed 02 February 2004 have been fully considered but they are not persuasive.

Applicants argue, in substance, that a) Chauhan in view of Scharber does not disclose a system that determines the point of presence server from the network of point of presence servers that is appropriate for the request for **static content** and specifically that Chauhan does not contemplate determining appropriate point of presence servers having static content; and b) Chauhan does not contemplate making a distinction between customer web servers and point of presence servers.

21. In response to a); As Applicant agrees, Chauhan is not relied on has disclosing POP servers with static content thereon. With respect to claim 1, the 103 rejection originally stated:

"Chauhan does not explicitly disclose point-of-presence servers as having cached static content thereon to further mirror data of a customer webpage. However, the use and advantages for using such a cache server is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses many types of cache servers including POP cache servers for redirecting requests for a most economical delivery of content to a end user (at least col. 4, lines 13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7)."

Thus, Scharber, in fact, is relied on as disclosing cache POP servers, and clearly states "where the desired content is static" (at least col. 4, lines 21-26). Further, it is well known in the art that cache servers store static content, rather than dynamic content, since static content does not change and dynamic content cannot be predicted and changes with time and thus has no value of being cached. Also, the specification states on pp. 4, lines 1-5, static content as being cacheable content, which is clearly depicted in Scharber.

22. In response to b); Although the claim language is broad enough to encompass the interpretation urged by the Applicants, the claim language itself does not require making a distinction between customer web servers and point of presence servers. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Chauhan is not relied on disclosing POP servers at all. Scharber is combined with Chauhan as disclosing POP servers having cached, static content thereon.

Chauhan does disclose web servers, as Applicant admits. However, the claims only require the second request as requesting static content which happens to be on POP servers. The fact that the request goes to POP servers itself does not hold patentable weight as POP servers also act as web servers and is simply a species of web server, as the specification acknowledges, and Scharber is disclosed as being able to retrieve the request from a POP server having cached content thereon. As Chauhan discloses sending the request to the optimal web server, it is understood and inherent for the mirrored web server to be any kind of web server, in which a POP web server would definitely be a likely candidate as having static content which is the most desirable content for mirroring over servers.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Newly cited Bharat et al, Lewis et al, and O'Neil et al in addition to previously cited Bolton et al, Emens et al, Shah, Leighton et al, Logan et al, Rune, Sitaraman et al, Malcolm, Herriot, Kapoor, and Gupta et al are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd

Patent Examiner

Technology Center 2100

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100